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June



Exercise, Biomechanics and Nutrition



BOOK OF ABSTRACTS

Book of Abstracts

1st INTERNATIONAL CONGRESS EXERCISE, BIOMECHANICS AND NUTRITION – ESE/IPS 6 and 7 of June 2022

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Preface

After the harmful effects of a pandemic such as COVID-19 was and still is, holding scientific events in person becomes even more important for the scientific and academic community to resume its normal activity in its role as academy and transmitter of knowledge for everyone. The Superior School of Education from Polytechnic Institute of Setúbal, more specifically in the field of Sport Sciences, as an institution that promotes technical-scientific knowledge and reference entity in the region of Setubal and in the country as a promoter of professional and academic training in the field of sport, always seeks to respond to the needs of its students. Thus, the international congress Exercise, Biomechanics and Nutrition emerged with the aim of disseminating knowledge about the latest developments in the field of physical exercise and their implications for health, quality of life and sports performance. This congress had the partnership of 14 speakers from five international institutions, with technical and scientific skills recognized worldwide, contributed to the increase of the technical skills of the participants through 14 dynamic and high quality lectures, in the field of biomechanics, sports nutrition, physiology of exercise and physical activity and health. In addition to the lectures, more than seventy works were presented at this congress, submitted by authors from different parts of the world, such as Brazil, Turkey, Portugal and Spain.

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Congress Committees

Organizing Committee

Superior School of Education of Polytechnic Institute of Setúbal (ESE-IPS)

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Congress Program

June 6th, Monday

10:00 – Opening Session – ESE Auditorium

Angela Lemos | President of the Polytechnic Institute of Setúbal

Cristina Gomes da Silva | Dean of ESE

Borja Sanudo | Head of Sport Sciences Department of University of Sevilla

Fernando Pareja-Blanco | Head of Sport Sciences Department of University of Pablo de Olavide

Teresa Figueiredo | Head of Science and Technology Department of ESE-IP Setúbal

Luis Leitao | Professor at the Science and Technology Department of ESE-IP Setúbal

10:30 – *Physical Activity, Exercise and Health* – ESE Auditorium

Assessing physical fitness in Older Adults – **PhD Borja Sañudo, University of Sevilla**

Physical Exercise and Obesity – **PhD António Sánchez-Oliver, University of Sevilla**

The school as a promoter of healthy habits – **PhD José Enrique Moral Garcia, University of Sevilla**

Physical Exercise and Osteoporosis – **MsT Horácio Sánchez-Trigo, University of Sevilla**

12:30 – Lunch Break

14:00 – *Exercise and Biomechanics in sport* – ESE Auditorium

Strength training and vigorexia – **PhD Jefferson Novaes, Federal University of Rio de Janeiro**

Partial Vs Total amplitude in Strength Training – **PhD Jeferson Vianna, Federal University of Juiz de Fora**

Training Methodology in Fitness – **PhD Maria Socorro Cirilo, Federal University of Paraíba**

15:30 – Break

16:00 – *Biomechanics and Nutrition in sport for health* – ESE Auditorium

Strength training monitoring – **PhD Alejandro Muñoz-Lopez, University of Sevilla**

Advances in Sports Supplementation: Beetroot Juice – **PhD Raúl Dominguez, University of Sevilla**

17:00 – Break

17:15 – Abstract/Video Presentations I

June 7th, Tuesday

9:00 – Abstract/Video Presentations I

10:30 – Sports Management and social inclusion through physical exercise
Social Inclusion and Sport. New perspectives from education in the natural Physical Activity and Sport for Vulnerable Populations – **PhD Jesús Fernández-Gavira, Sevilla University**
Challenges in managing personal training services – **PhD Jerónimo Garcia-Fernández, University of Sevilla and PhD Moisés Grimaldi-Puyana, University of Sevilla**

12:30 – Lunch Break

14:00 – The real effect of Ischemic PreCondition on physical exercise – **PhD Moacir Marocolo, Federal University of Juiz de Fora**

14:45 – Speed of execution as a basis for Strength Training with BFR – **PhD Fernando Pareja-Blanco, University of Pablo de Olavide**

15:45 – *Congress Closing Session*

Cristina Gomes da Silva | Dean of Superior School of Education of the Polytechnic Institute of Setúbal

Luis Leitão | Professor of Science and Technology Department at ESE-IP Setúbal

Ana Pereira | Coordinator of the Degree in Sports at ESE-IP Setúbal

Abstracts

Use of Dietary Supplements in Turkish Professional Soccer Players: Preliminary Data

Elif Günalan^{1*}, Betül Yıldırım¹, Saadet Turhan², İrem Kaya Cebioğlu³, Raúl Domínguez⁴, Antonio Jesús Sanchez-Oliver⁴

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Abstract: The usage of dietary supplements (DS) is a potential strategy to achieve success for professional soccer players who have a very challenging schedule with national and international competitions. The aim of this study is to evaluate the DS consumption and related issues of Turkish soccer players. 117 professional soccer players (79 male and 38 female) participated to the study. All the participants completed DS consumption related specific questionnaire which including parts of demographic properties, sports/ training and consumption of DS. According to results, 87.2% (n=102) of participants declared consuming at least one supplement. Consumption of DS was determined a higher amount in males than females (93.7% vs. 73.6%). The average number of consumed DS (plus the std. dev.) by the participants was calculated as 7.4 ± 7.0 (10.1 ± 7.5 in males vs. in females 4.0 ± 4.3). The mostly consumed DS were sports drinks (63.2%), magnesium (52.1%), vitamin C (51.3%), vitamin D (46.2%), caffeine (38.5%), sports bar (28.2%), whey protein (28.2%), meat protein (25.6%), vitamin E (24.7%), omega 3 fatty acids (24.8%), zinc (23.1%), electrolytes (22.2%) and iron (22.2%). The major reason for consumption of DS was to increase the sport performance (65.8%). Most common sites of purchase were soccer club (38.5%), pharmacy (25.6%) and internet (18.8%). Main sources of DS consuming motivation were dietitian (39.3%) and physical trainer (35%). Consumption of DS was widely common behaviour among Turkish professional soccer players. However, it has been observed that there were major differences in consumption awareness of DS among soccer players who were different sexes. In the further analysis and studies, the investigation of the consumption of DS within the framework of legality, effectiveness and reliability will be important in terms of protection and improvement the health of soccer players.

Keywords: ergogenic aids; football; nutrition; sports performance; supplementation.

Uso de Suplementos Dietéticos en Futbolistas Turcos Profesionales: Datos Preliminares

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Resumen: El uso de suplementos dietéticos (SD) es una estrategia potencial para lograr el éxito de los futbolistas profesionales que tienen un calendario muy desafiante con competencias nacionales e internacionales. El objetivo de este estudio es evaluar el consumo de SD y cuestiones relacionadas de los jugadores turcos profesionales. En el estudio participaron 117 futbolistas profesionales (79 hombres y 38 mujeres). Todos los participantes completaron un cuestionario específico relacionado con el consumo de SD que incluía aspectos personales y demográficos, aspectos específicos de su deporte/entrenamiento y consumo de SD. Según los resultados, el 87,2% (n=102) de los participantes declararon consumir al menos un SD. El consumo de SD se determinó en mayor cantidad en hombres que en mujeres (93,7% vs 73,6%). El número medio de SD consumidos (más la desviación estándar) por los participantes fue $7,4 \pm 7,0$ ($10,1 \pm 7,5$ en hombres frente a $4,0 \pm 4,3$ en mujeres). Los SD más consumidos fueron bebidas deportivas (63,2%), magnesio (52,1%), vitamina C (51,3%), vitamina D (46,2%), cafeína (38,5%), barra deportiva (28,2%), proteína de suero (28,2%), proteína de carne (25,6%), vitamina E (24,7%), ácidos grasos omega 3 (24,8%), zinc (23,1%), electrolitos (22,2%) y hierro (22,2%). El principal motivo de consumo de DS fue aumentar el rendimiento deportivo (65,8%). Los sitios de compra más comunes fueron club de fútbol (38,5%), farmacia (25,6%) e internet (18,8%). Las principales fuentes de motivación para consumir SD fueron el dietista (39,3%) y el preparador físico (35%). El consumo de SD fue muy común entre los futbolistas profesionales turcos, observándose grandes diferencias por sexo. En los análisis y estudios posteriores, la investigación del consumo de SD en el marco de la legalidad, eficacia y seguridad será importante en términos de protección y mejora de la salud de los jugadores de fútbol.

Palabras clave: ayudas ergogénicas; fútbol americano; nutrición; rendimiento deportivo; suplementación